

REMARKS

Claims 1-4 are pending. By this Response, claims 1, 3 and 4 are amended. Reconsideration and allowance based on the above amendments and following remarks are respectfully requested.

The Office Action rejects claim 4 under 35 U.S.C. §112, first paragraph for failing to comply with the written description requirement. This rejection is respectfully traversed.

Specifically, the Office Action asserts that claim 4 contains subject matter which is more specific and detailed in regard to the various grooves and conductor provided within the grooves than the specification discloses. It is alleged in the Office Action that the specification only teaches that the second and third grooves are provided so that the turns of the coil will not be concentrated in only one of the grooves and therefore does not provide the level of detail present in the claim.

Applicants note that “the failure of the specification to specifically mention a limitation that later appears in the claims is not a fatal one when one skilled in the art would recognize upon reading the specification that the new language reflects what the specification shows has been invented.” *All Dental Prods, LLC v. Advantage Dental Prods., Inc.* 309F.3d 774; 64USPQ 2d 1945 (Fed. Cir. 2002). Further, “under proper circumstances, drawings alone may provide a written description of an invention as required by 35 U.S.C. §112. Drawings, constitute an adequate description if they describe what is claimed and conveyed to those of skill in the art that the patentee actually invented was claimed.” *Cooper Cameron*

*Corp. v. Kvaerner Oil Field Prods., Inc.* 219F.3d 1357; 62 USPQ2d 1846 (Fed. Cir. 2002). Applicants respectfully submit that the entire specification when read together in view of the drawings properly disclose the claimed features as recited in claim 4.

One of ordinary skill in the art would readily be able to ascertain from the specification and drawings the level of detail provided in claim 4. For example, the specification discloses the use of a plurality of grooves in parallel with each other (7, 11). The specification also states that “the turns of the coils that are laid in grooves 12 formed in the coil bobbin 2 are directed from the groove 11 and not from groove 7”. See page 7, second paragraph. Fig. 2 illustrates the relationship of the plurality of guide grooves and the placement of the conductor in the various grooves based on the location within the coil bobbin. Fig. 3 shows an overview of the coil bobbin in relation to the various grooves and conductor wires. Thus, the relationship of the coil turns with the grooves is provided in the specification in enough detail to ascertain along with the figures the detail recited in claim 4. Therefore, one of ordinary skill in view of the features discussed above and other elements disclosed within the specification and figures would be able to recognize that the language in the claims reflects what has been invented. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

The Office Action rejects claim 1 under 35 U.S.C. §103(a) as being unpatentable over Ikeuchi (EP 0 572 192) in view of Murata (JP 06-168677) and claim 2 under 35 U.S.C. §103(a) as being unpatentable over Ikeuchi and Murata

in view of Osinga, et al. (U. S. Patent No. 4,484,166). These rejections are respectfully traversed.

The Office Action alleges that Ikeuchi disclose each of the claimed features as recited in claim 1 except for the second guide groove and third guide groove having a width in a range of 1 to 1.5 times the diameter of the conductor. The Examiner alleges that Murata makes up for this deficiency as recited in claim 1. Applicants respectfully disagree.

Ikeuchi provides a saddle bobbin in which various types of grooves are provided within the inner surface of the saddle bobbin. However, Ikeuchi does not teach or suggest at least one second guide groove formed at the outer surface of the front end portion and at least one third guide groove formed at the outer surface at the rear end portion of the saddle coil bobbin, as recited in amended claim 1.

Further, Murata also fails to disclose second and third guide grooves on the outer surface of the front and rear end portion, respectively. Murata provides a coil bobbin in which the coils are distributed within grooves provided on the inner surface of the coil bobbin and not on multiple guide grooves located on the outside of the coil bobbin at the front and rear of the coil bobbin as in the present invention.

Also, the multi-wire conductor of Murata has a substantial rectangular cross section which is contrary to applicants claimed circular cross section for a multi-wire configuration. Paragraph 8, lines 7-11 in Murata, as translated, states

“a deflection coil is formed of a plurality of wires, for example, four solid wires 1a, 1b, 1c and 1d (e.g., copper wires) each of which is covered with an insulating material. The deflection coil is in the shape of a **flat plate**. That is, the deflection coil is a flat multi-conductor cable formed either by enclosing four solid wires in a single piece of insulating material or by bonding the four solid wires together by an adhesive” (emphasis added). Therefore, the combination of the circular wires provided a multi-wire configuration with a rectangular cross sectional area.

The multi-wire configuration of Murata cannot be used in the coil bobbin of the present invention. A flat multi-conductor cable with a rectangular cross section would be very difficult to wind when laid in a guide groove located on the outer surface of the coil bobbin. Thus, the present invention provides for a multi-wire configuration with a substantial circular cross section to correct for these problems. (Applicants have attached hereto an English abstract of Murata).

Further, Osinga fails to make up for the deficiencies of Ikeuchi and Murata as provided above. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

The Office Action rejects claim 3 under 35 U.S.C. §103(a) as being over Christiana, et al. (U.S. Patent 3,601,731) in view of Hirota, et al. (JP 01-151134). This rejection is respectfully traversed.

The Office Action alleges that Christiana teaches each of the elements of claim 3 except for the limitation of a multiwire conductor wound around a saddle-type coil bobbin having a substantially circular across section and the limitation

of the second groove and third groove having a width in a range of 1 to 1.5 times a diameter of the conductor. Applicants respectfully submit that Christiana also fails to teach or suggest at least one second guide groove formed at the outer surface of the front end portion and at least one third guide groove formed at the outer surface of the rear end portion in which the conductor is laid substantially side by side in said first guide grooves, said at least one second guide groove in said at least one third guide groove, as recited in claim 3.

The yoke of Christiana provides annular channels 136 and 138 located at opposite ends of the yoke for receiving the end turns of the coils. The Christiana reference does not provide any indication that the conductors are laid substantially side by side in the guide grooves as recited in claim 3.

Further, Hirota teaches the winding of various wires to provide a thicker wound wire. Hirota does not teach or suggest the use of a coil bobbin in which a second and third groove are provided on the outer front end and outer rear portions of the coil, respectively in which the coils are laid side by side within the grooves as recited in claim 3.

In view of the above, it is respectfully submitted that the combination of Christiana and Hirota fails to teach each and every aspect of the claimed invention as required. Therefore, reconsideration and withdrawal of the rejection are respectfully requested.

Conclusion

For at least these reasons, it is respectfully submitted that claims 1-4 are distinguishable over the cited references. Favorable consideration and prompt allowance are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad J. Billings (Reg. No. 48,917) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s)